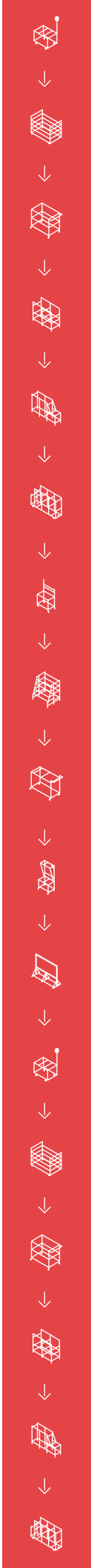


THE ADAPTIVE  
MATERIAL HANDLING  
SYSTEM TO  
CONTINUALLY IMPROVE  
YOUR MANUFACTURING  
PROCESS.



**CREFORM**<sup>®</sup>  
**MATERIAL HANDLING SYSTEM**

*IT'S HOW YOU PUT IT TOGETHER THAT SETS US APART.*



# THE CREFORM SYSTEM

A simple concept designed to grow your company's efficiency through manufacturing-supportive designs of material handling structures.

The Creform® System is a broad line of plastic-coated steel pipes, joints and accessories that lets you design and build material handling structures for virtually all areas of your manufacturing process. And because they're adaptive, Creform structures can easily be reconfigured.

Creform is dedicated to helping you build an efficient material handling system, whether it's a single structure or a plant-wide, corporate-wide deployment.

Creform empowers employees to creatively achieve continuous improvement and lean manufacturing objectives. It also promotes employee support of the Five S philosophy and JIT inventory requirements.

**CREFORM, the SMART choice.**

**Simple** in design, the tools required, and assembly.

**Mobile** because of its portability and light weight.

**Adjustable** to changes whether in the product, process or volume.

**Reusable** after changes are made to the product, process or volume.

**Temporary** so that when the life cycle of the product or process ends, it can be modified and reused.



# A CREFORM STRUCTURE IS ONLY LIMITED BY YOUR IMAGINATION... FOR EXAMPLE.



*ESD Flow Rack*

Mobile flow racks with locking casters allow operators to make their assembly areas more ergonomically friendly and flexible, while minimizing floor space.



*Tilting Flow Rack*

Tilting mechanism presents parts for easy retrieval, then, when a tote box is empty, it tilts down to release the empty box allowing the next full tote to slide into working position.



*Dunnage Cart*

A Creform sequencing cart is easy to build to match dunnage requirements and protect parts or sub assemblies when sequencing to the line. It can easily be pulled by a Creform AGC.



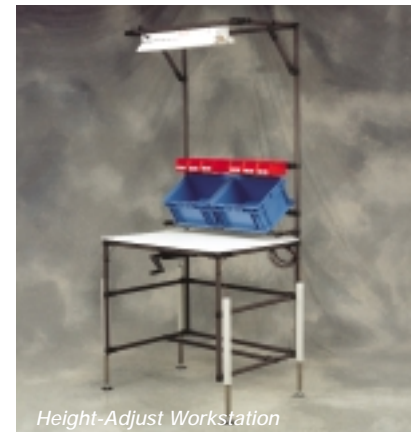
*Push Cart*

Creform push carts are lightweight yet strong, offer exceptional maneuverability, and can be built to exact size requirements then easily modified when needs change.



*Work Table*

Build a work table anywhere, to any height and size with permanently attached or removable surfaces. Add a back shelf to tilt and orient tools or parts.



*Height-Adjust Workstation*

This height adjustable station can be raised or lowered manually using a hand crank or electrically powered mechanism for optimum comfort and efficiency. Suspend lights & tools overhead.



*AGC Delivering Parts*

Creform Automated Guided Carts, are simple to design, build and install and they follow a magnetic tape on the floor. Present parts and assemblies in sequence to operators. With the addition of a hitch they can become



*AGC As a Tugger*

an automated tugger. AGC's can be programmed to slow and then stop at work areas for off-loading. Multiple courses or routes can be programmed into the optional Creform Course 10 Controller.



*Movable Display Board*

Creform systems don't have to involve high technology logistics for material handling. Even a simple movable display board contributes to plant efficiency through communication and the Five S philosophy.

# SIMPLE TO DESIGN, BUILD AND MODIFY.

## Getting Started

The pages that follow are designed to provide you with guidelines for building three useful structures, while familiarizing you with the Creform System. All three structures can be built using the Creform Starter Kit of materials.

Step-by-step instructions, and a bill of materials needed to complete the project are included. Each of these structures can be

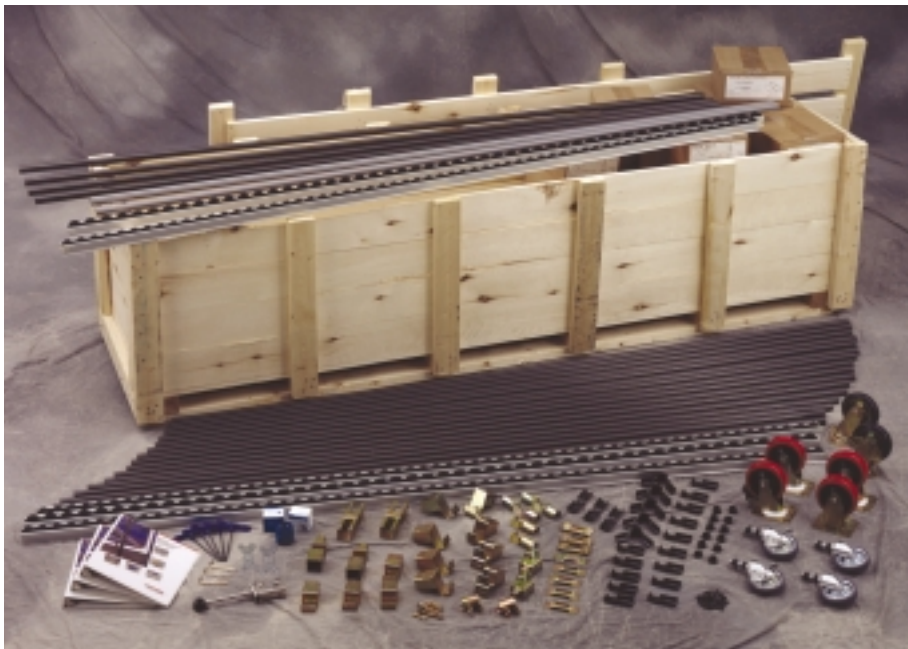
built as shown, or they can be modified to meet your specific requirements. However, should you modify any of these designs we recommend that you follow the technical specifications found in Section H of the Creform catalog to ensure the structural integrity of your finished product.

Once you become familiar with the Creform System, we're confident

that you will identify many applications and solutions to material handling challenges. With a small amount of inventoried material you will be able to respond quickly with creative solutions that will help move your company further down the path of continuous improvement.

Creform engineers are available to assist you at any time.

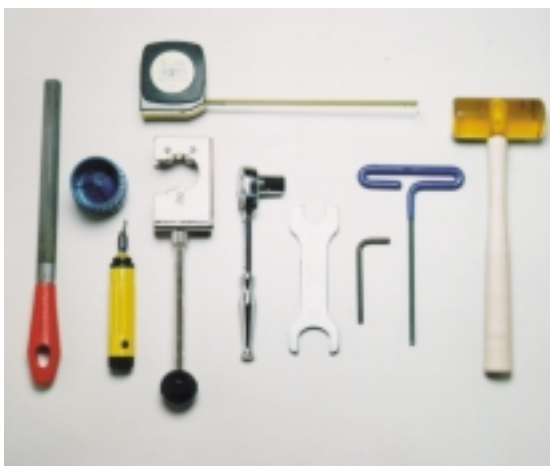
## Creform Starter Kit



The Starter Kit is a simple and economical method to acquaint new users with the Creform Material Handling System. Containing a variety of components in sufficient quantities to assemble elementary structures such as carts, racks, conveyors and workstations. The Starter Kit can be individualized with components specific to a particular application and budget.

Starter Kit contents may include (but are not limited to) a range of pipe styles including round and with flat "slide" surfaces, metal joints, conveyor rollers and components, casters, and tools such as a pipe cutter, deburring tool and wrenches. Creform recommends the initial use of metal joints which provide reusability and flexibility. However, plastic joints may be specified.

## Creform Tools



Only a few basic tools are required to create Creform structures. Most people are comfortable with the familiar grouping of tools at far left and these are sufficient to assemble most structures.

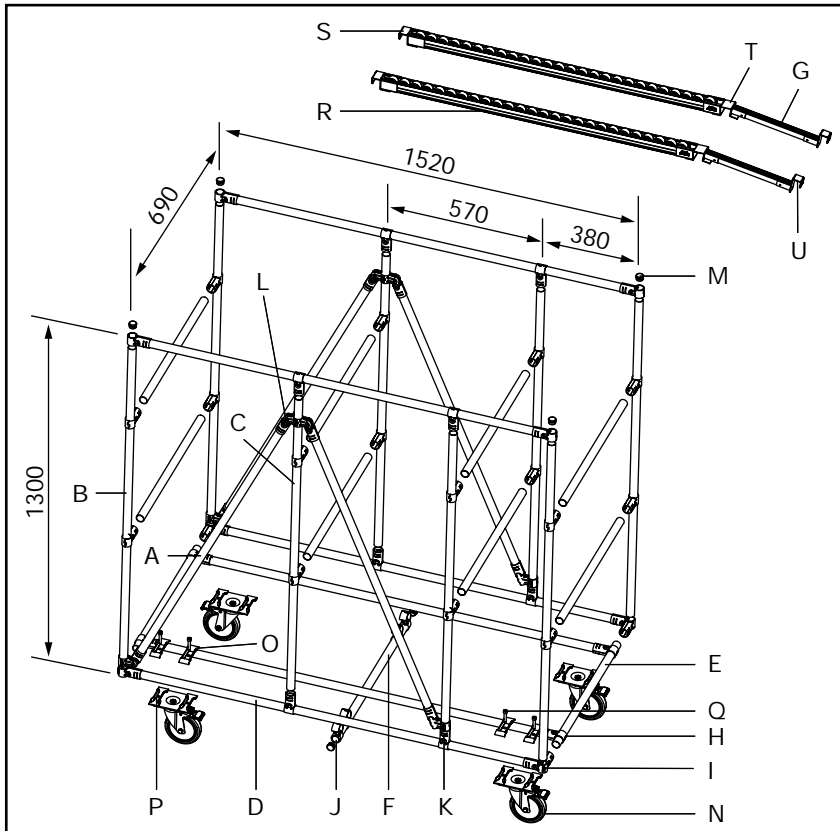
Experienced users and those assembling on a large scale may want to make use of additional tools and powered equipment.

The shadowboard tool cart shown at left helps support your Five S program with dedicated storage locations. Shown with Creform tools, such a cart can be customized for your tools, parts, and supplies.



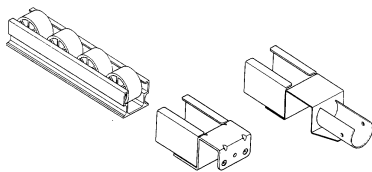
# FLOW RACKS

All dimensions in metric units. For example H-1215 is 1215mm in length.

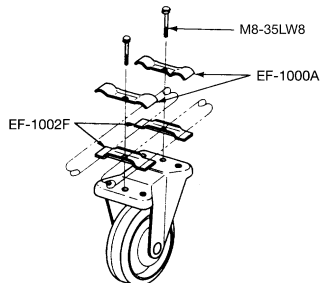


Height w/Caster 1465.

Insert plastic wheel conveyor into EF-2044C, H



Note: Attach caster straps to caster plate prior to attaching pipes.



## Bill of Material

Name	Quantity
A Pipes (Bracing) H-1215	4
B Pipes (Height) H-1334	4
C H-1230	4
D Pipes (Length) H-1450	6
E Pipes (Width) H-620	10
F H-730	1
G HK-370	4
H Components HJ-1	32
I HJ-2	4
J HJ-6	4
K HJ-7	4
L HJ-12	2
M J-110	10
N YJ-130S or TJ-130SU	4
O EF-1000A	8
P EF-1002F	8
Q M8-35LW8	8
R EF-2044-1107	4
S EF-2044C	4
T EF-2044H	4
U EF-2061E	4



Assemble base of rack on flat surface with four main uprights. Tighten bolts and nuts.



Attach casters and tighten all bolts and nuts.



Assemble remaining support pipes. Tighten all bolts and nuts.



Attach conveyor assemblies and adjust the height of conveyors to complete the flow rack.

# WORK STATIONS



Assemble two sides on flat surface. Finger tighten bolts and nuts.



Insert horizontal support pipes and tighten all bolts and nuts. Attach second side.

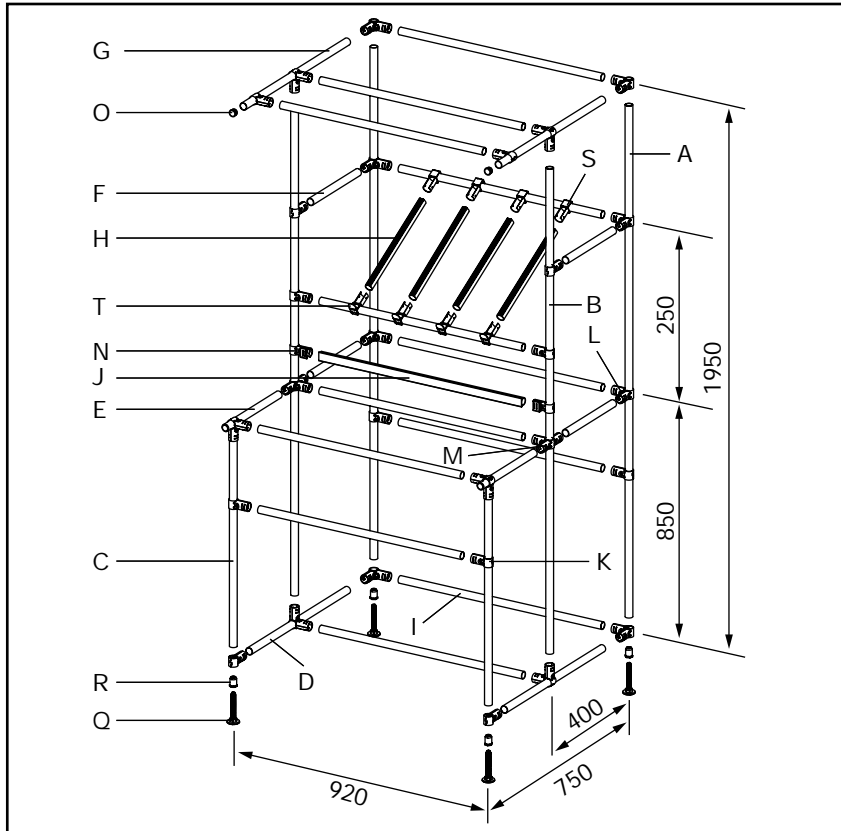


Attach all remaining pipes, joints and tighten bolts and nuts. Insert and tighten height adjuster feet.



Attach work surface and slide pipes. An overhead work light can be added if desired.

All dimensions in metric units. For example H-1984 is 1984mm in length.



Height w/Adjuster Foot 2050. Work Surface Hgt. w/Adjuster Foot 948.

Insert slide pipe into EF-2061A, B

Attach pipe to board using EMT-1

1. De-Burr pipe
2. Place EF-1209CA into pipe
3. Screw EF-1209A into EF-1209CA
4. Adjust height and tighten nut until secure

Bill of Material		
	Name	Quantity
A	<b>Pipes (Height)</b> H-1984	2
B	H-1880	2
C	H-832	2
D	<b>Pipes (Length)</b> H-680	2
E	H-370	2
F	H-330	4
G	H-720	2
H	<b>Slide Pipe</b> HK-425	4
I	<b>Pipes (Width)</b> H-850	12
J	HF-850	1
K	<b>Components</b> HJ-1	12
L	HJ-2	14
M	HJ-3	2
N	MF1-1	2
O	J-110	6
P	EMT-1	4
Q	EF-1209A	4
R	EF-1209CA	4
S	EF-2061A	4
T	EF-2061B	4
U	3/4" Surface 955 x 820	1
V	Screw	4

# THE CREFORM SYSTEM

## Creform Standard 28mm Pipe Strength

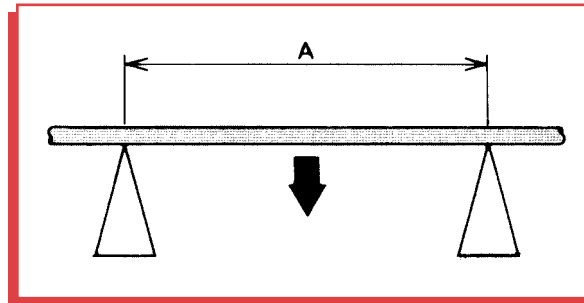
### Experimental Conditions

- The pipe rests freely at room temperature on two supports.
- A force is applied at 1/2 A at a speed of 50mm/min.

A Dimension	Proportional Limit
450mm (1' 5")	140kg (308 lbs.)
900mm (2' 11")	70kg (154 lbs.)
1,000mm (3' 3")	58kg (128 lbs.)
1,100mm (3' 7")	52kg (115 lbs.)
1,300mm (4' 3")	46kg (101 lbs.)
1,500mm (4' 11")	38kg (84 lbs.)
1,800mm (5' 10")	32kg (70 lbs.)

\* Proportional limit refers to the point where any further force would permanently deform the pipe.

For further technical information contact your Creform Representative.



## CREFORM CATALOG



Creform customers receive our complete catalog, listing over 600 components including pipes, joints, accessories, casters and specialty items plus a detailed technical section and many examples of structures and applications. The catalog is laid out in product groups making it extremely easy to locate the right parts for your projects. There are photographs and dimensional drawings of every component along with material descriptions and usage data. Contact a Creform representative for details.

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MATERIAL HANDLING SYSTEM

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