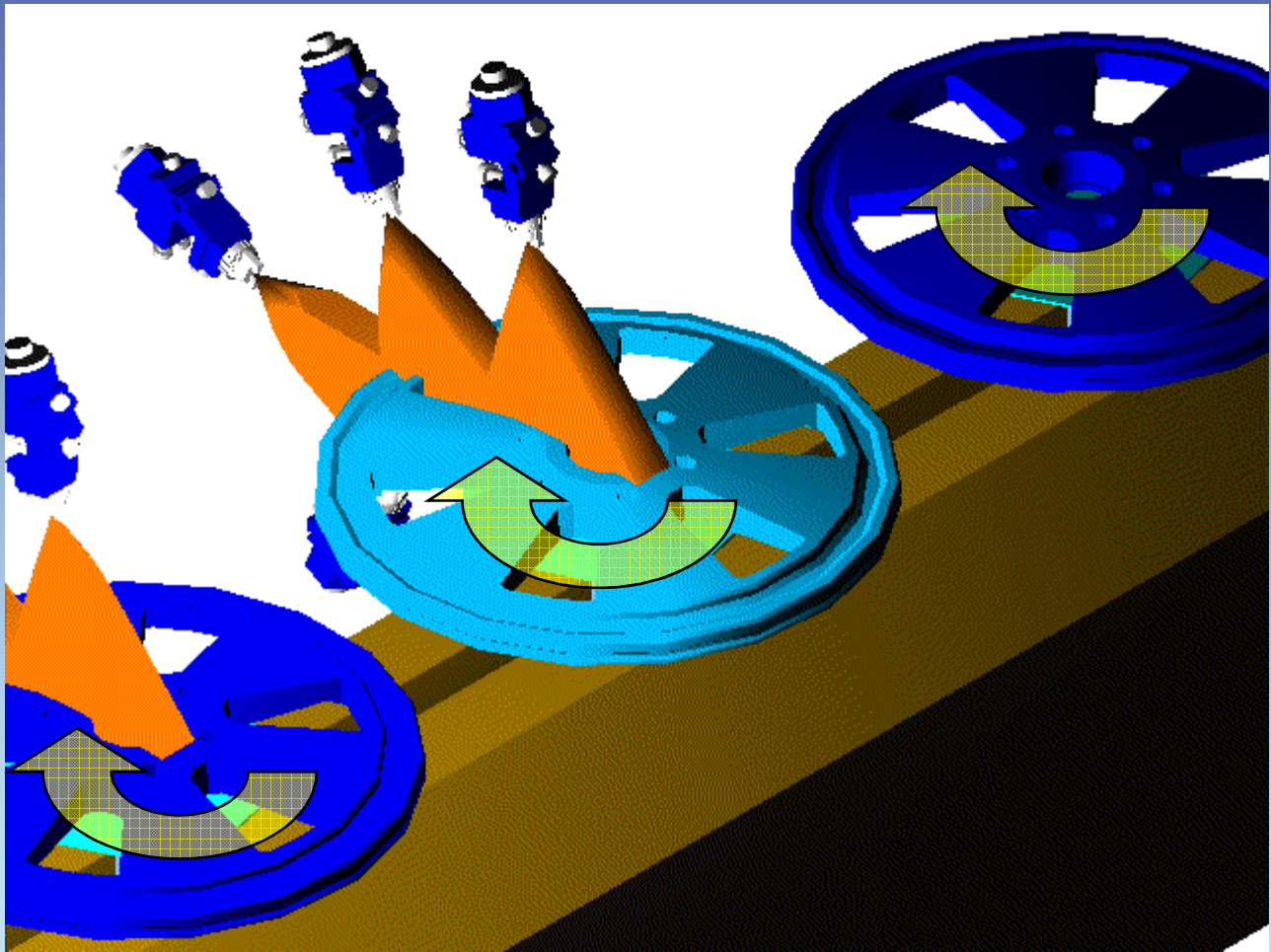
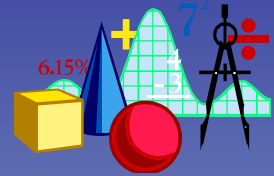


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Wheel Cover Evaluation

Class I Division I

Groups C & D



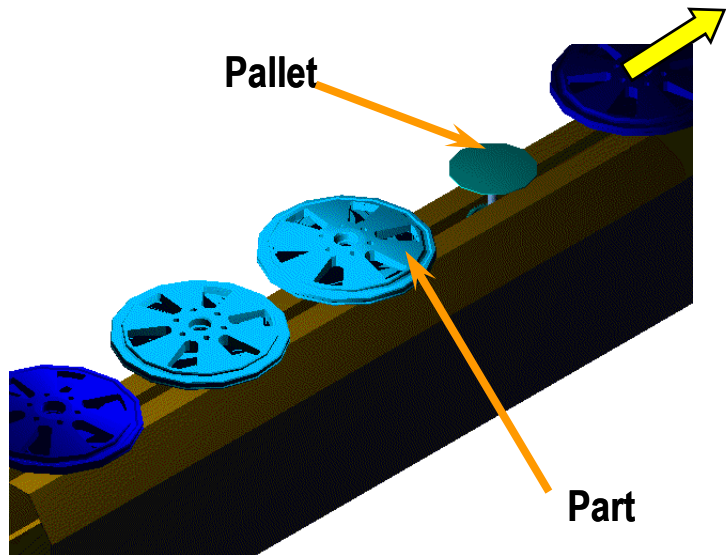
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SPRAY BOOTH

(Information provided by the customer for use in evaluation)

**Class I Division I
Groups C & D**



SPRAY BOOTH PROD RATES

CONVEYOR SPEED = 30 ft/min

PARTS / PALLET = 6-30

PALLET SIZE = 21" dia

PALLETS PER PASS = 3

PART SIZE = 13" to 21" dia

PART CENTERS = 24 "

PROD RATE = 900 parts/hr

PROD RATE = 7,200 parts/8 hrs

APPLICATION DESCRIPTION

DRY FILM BUILD = 1.2 mils

% SOLIDS BY WEIGHT = 36-53%

AIR SPRAY GUNS = 4 per pallet

FLOW RATE / GUN = 40 ml/min

ROTATION SPEED = 30 rpm

VISCOSITY (Zahn 1) = 22 - 24 sec

TRANSFER EFF = 20 - 30 %



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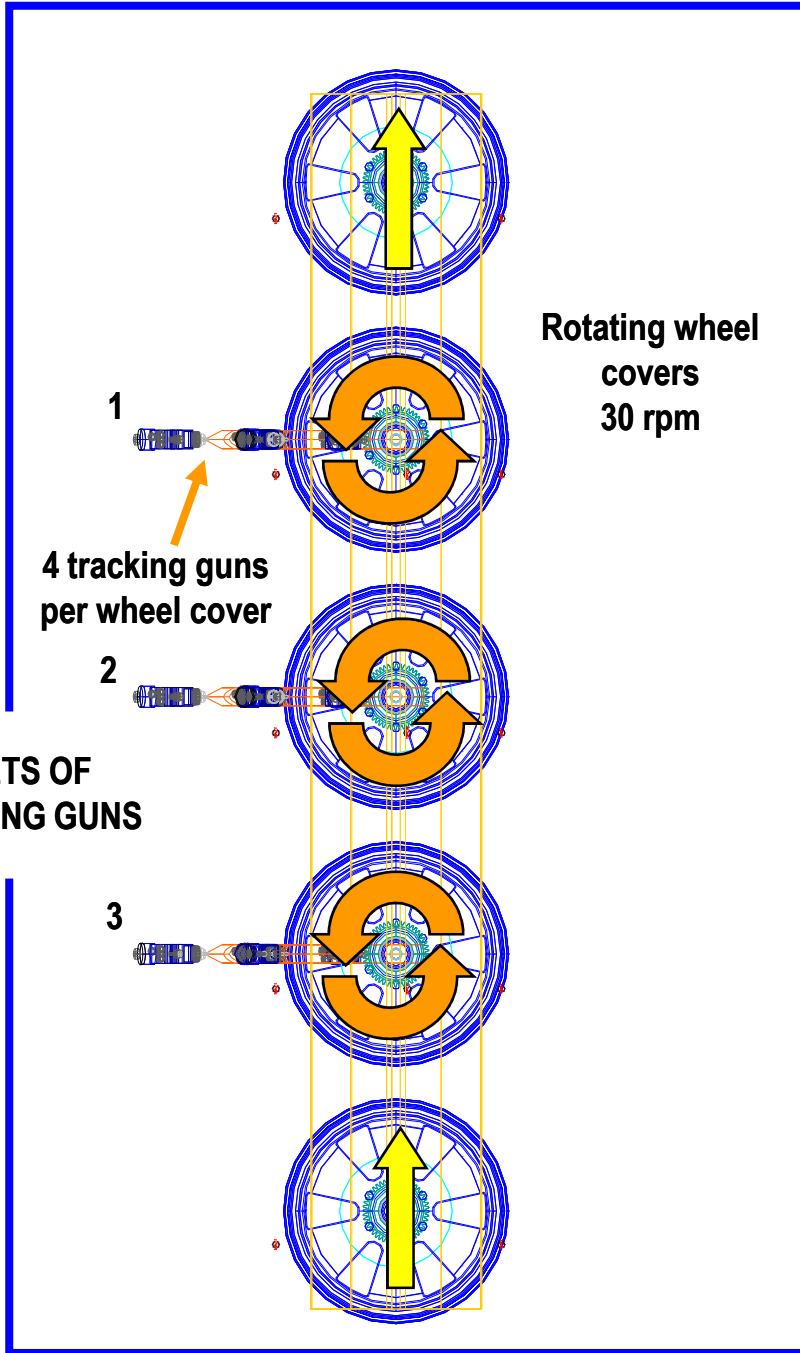
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CONVEYOR
30' per min



SPRAY BOOTH

Class I Division I
Groups C & D



Rotating wheel
covers
30 rpm

Paint station

3 SETS OF
TRACKING GUNS

4 tracking guns
per wheel cover



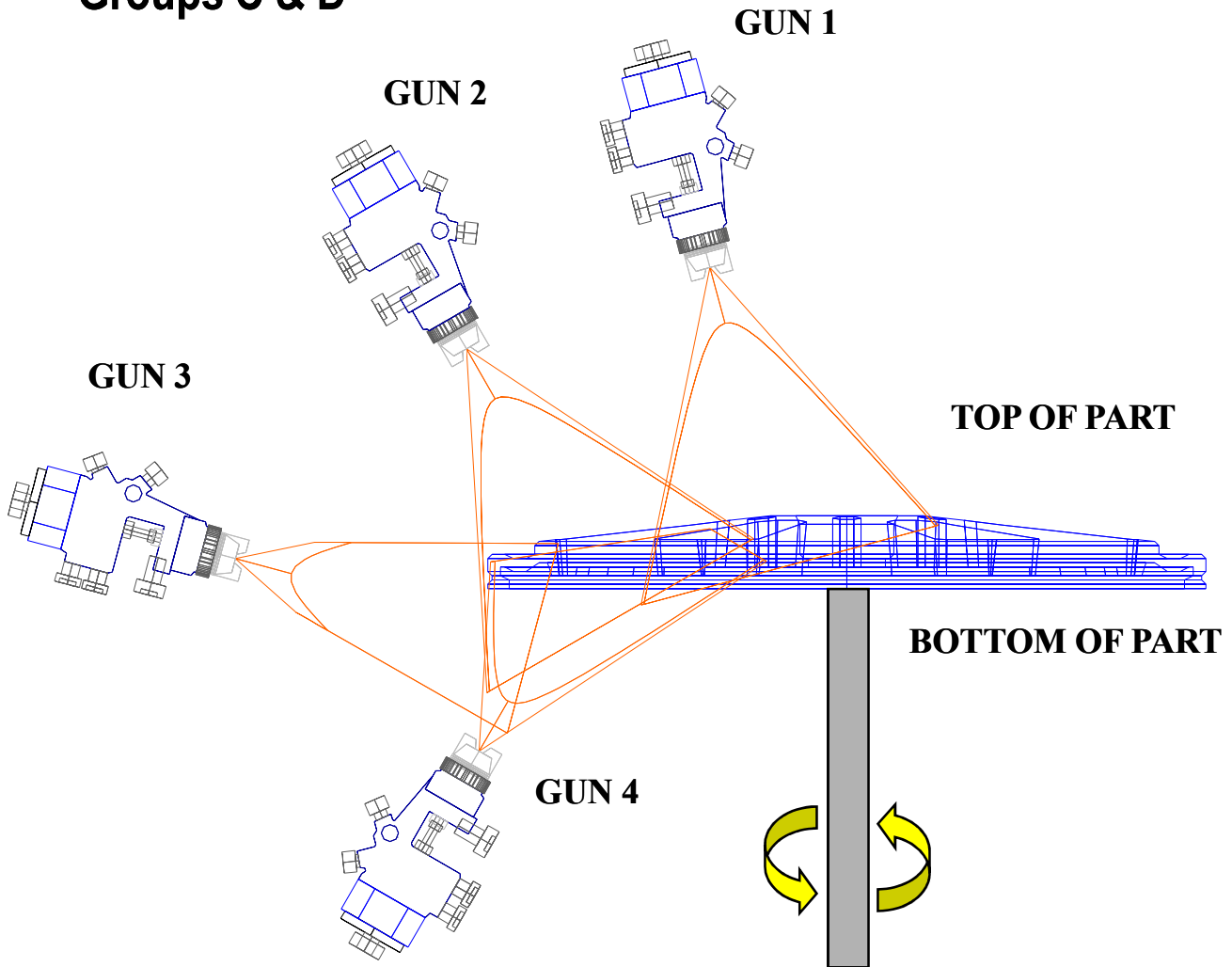
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Spray Guns

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H = Gun tip to surface of parts = 4.5" to 8"

W = Width of fan pattern at spray impingement point = 3" to 8"



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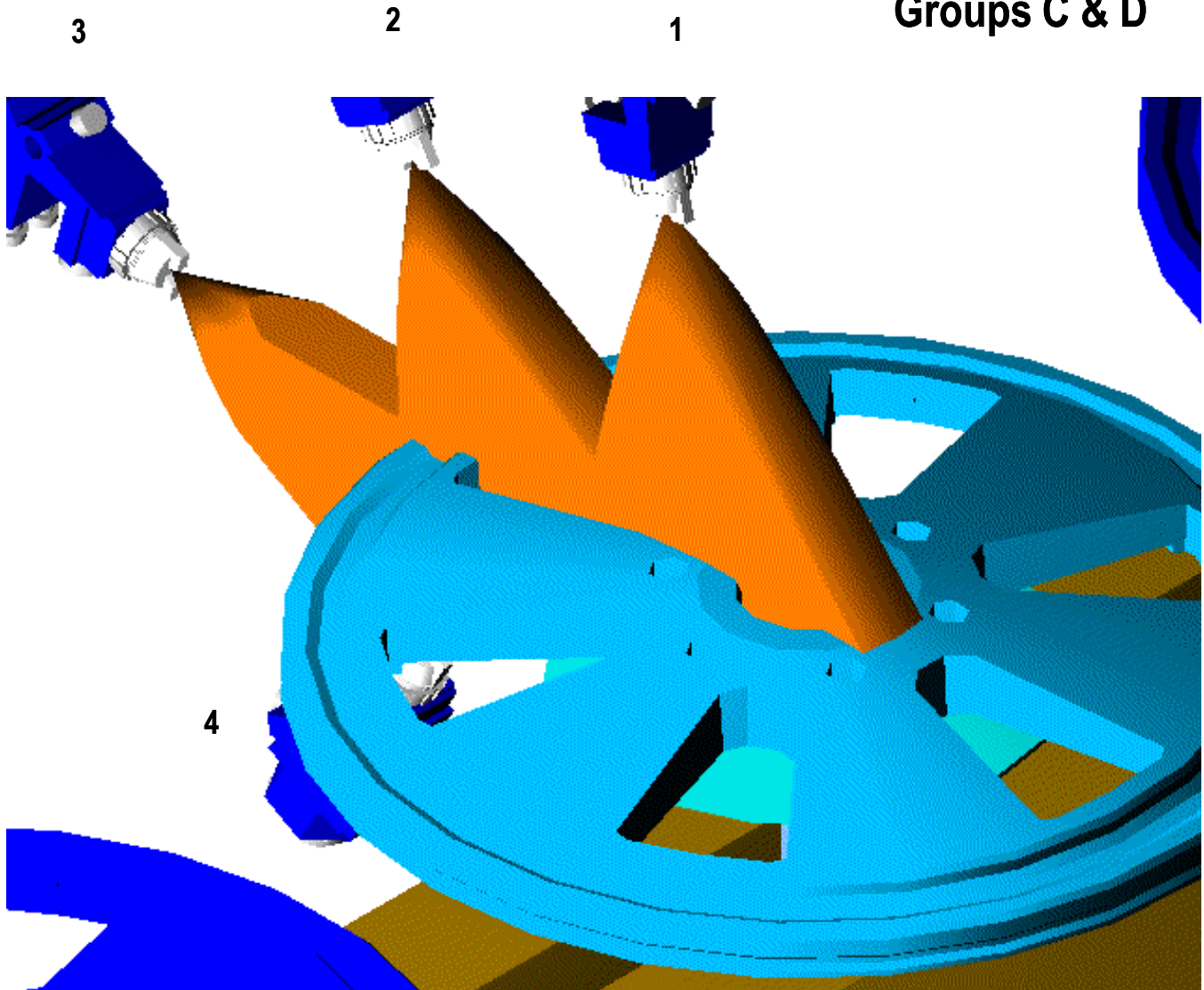
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Gun Geometry

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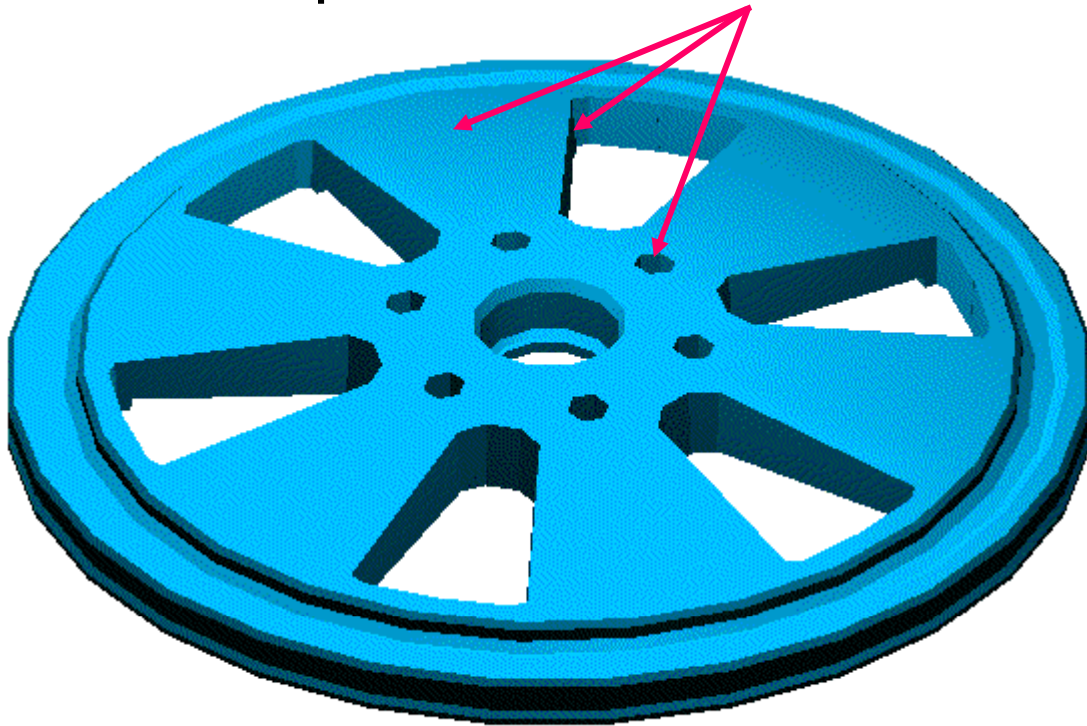
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Part Surface Area

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422 sq in



A1 = Part Surface Area for 22" dia wheel cover

SUMMARY:

Based upon parts of arbitrary size, each pallet has an estimated part surface area to be coated of 422 in sq.



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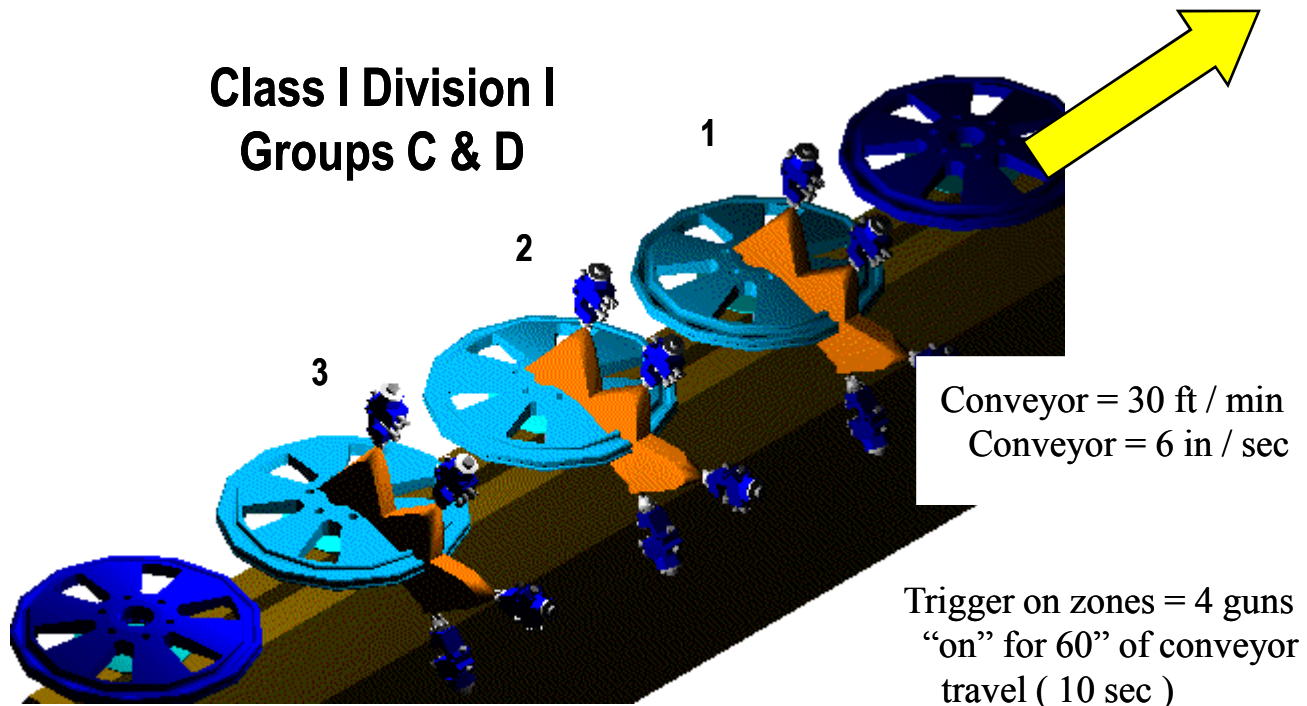
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Required fluid delivery

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Groups C & D



F1 = Total flow for four guns on one rack

$$F1 = 3 \text{ oz} \quad F1 = 88.8 \text{ ml}$$

F4 = Flow rate for four guns on one rack

$$F2 = 3 \text{ oz} \times 6 \quad F2 = 18.0 \text{ oz/min} \quad F2 = 532 \text{ ml/min}$$

SUMMARY:

As the 24" part rack travels under one set of guns a total fluid amount of 88.8 ml or 3.0 fluid oz is dispensed. There are three sets of guns per booth therefore, there is a total amount of paint used in one booth of 266.4 ml or 12.0 fl oz. for each set of three parts. With a flow rate of 18 oz/min for four guns and a total flow rate per booth of 54.0 oz/min or 1,586 ml/min for the whole booth.



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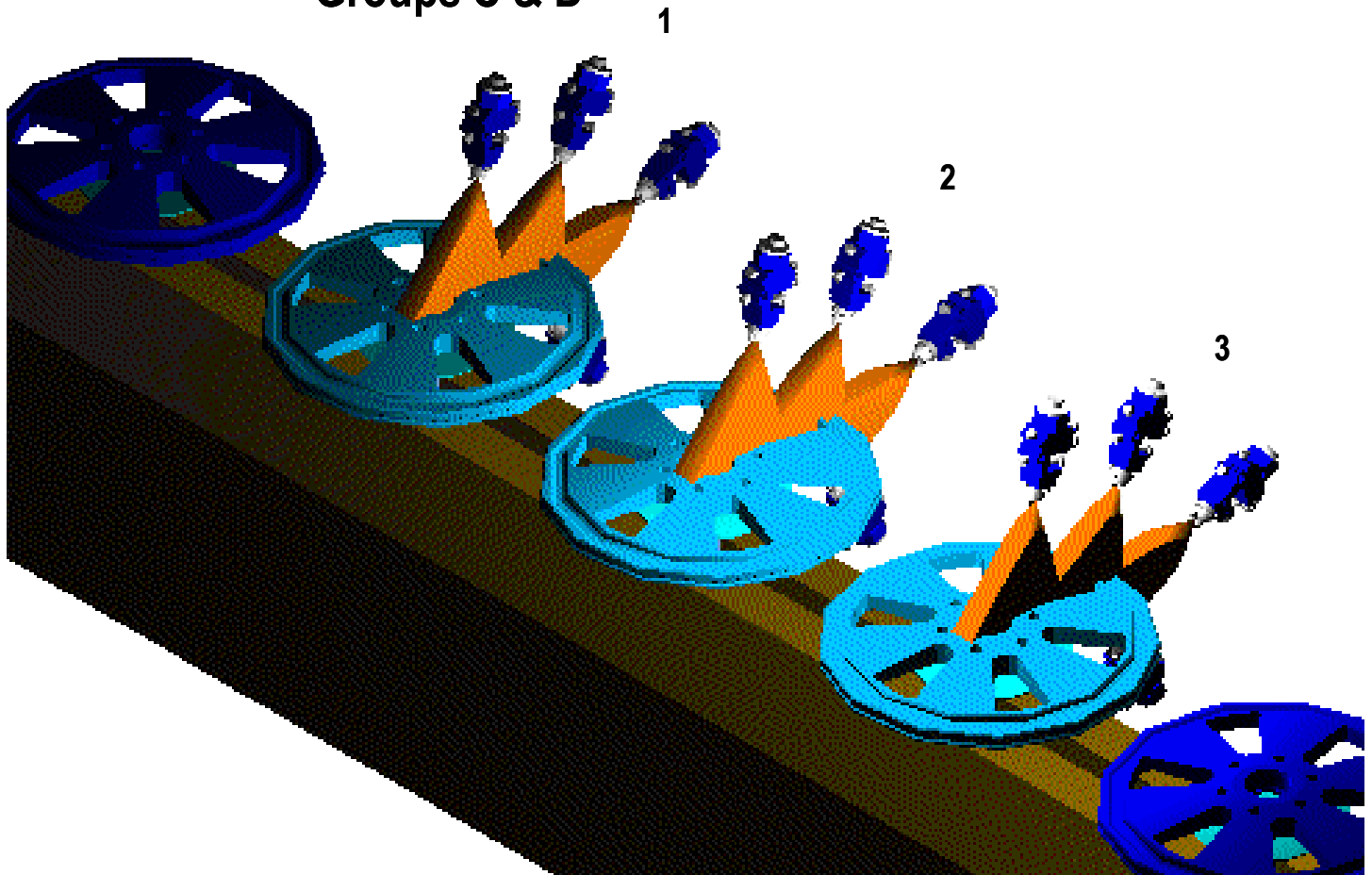
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Three Banks of Guns

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Units and Conversions

To convert from	To	Multiply by:
Cubic centimeters	Cubic inches	.06102
Cubic centimeters	Fluid ounces	.033814
Cubic centimeters	Gallons	.0002642
Cubic inches	Cubic centimeters	16.387
Cubic inches	Fluid ounces	.554
Cubic inches	Gallons	.004329
Fluid ounces	Cubic centimeters	29.5735
Fluid ounces	Cubic inches	1.804
Fluid ounces	Gallons	.0078125
Gallons	Cubic centimeters	3785.43
Gallons	Cubic inches	231
Gallons	Fluid ounces	128



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