

# ROTARY FEEDERS

BUILT PRECISELY FOR MAXIMUM UPTIME™



**PRECISION**

PRECISION MACHINE & MANUFACTURING, INC.

Built to last

Standard or custom sizes

Wide range of capacities

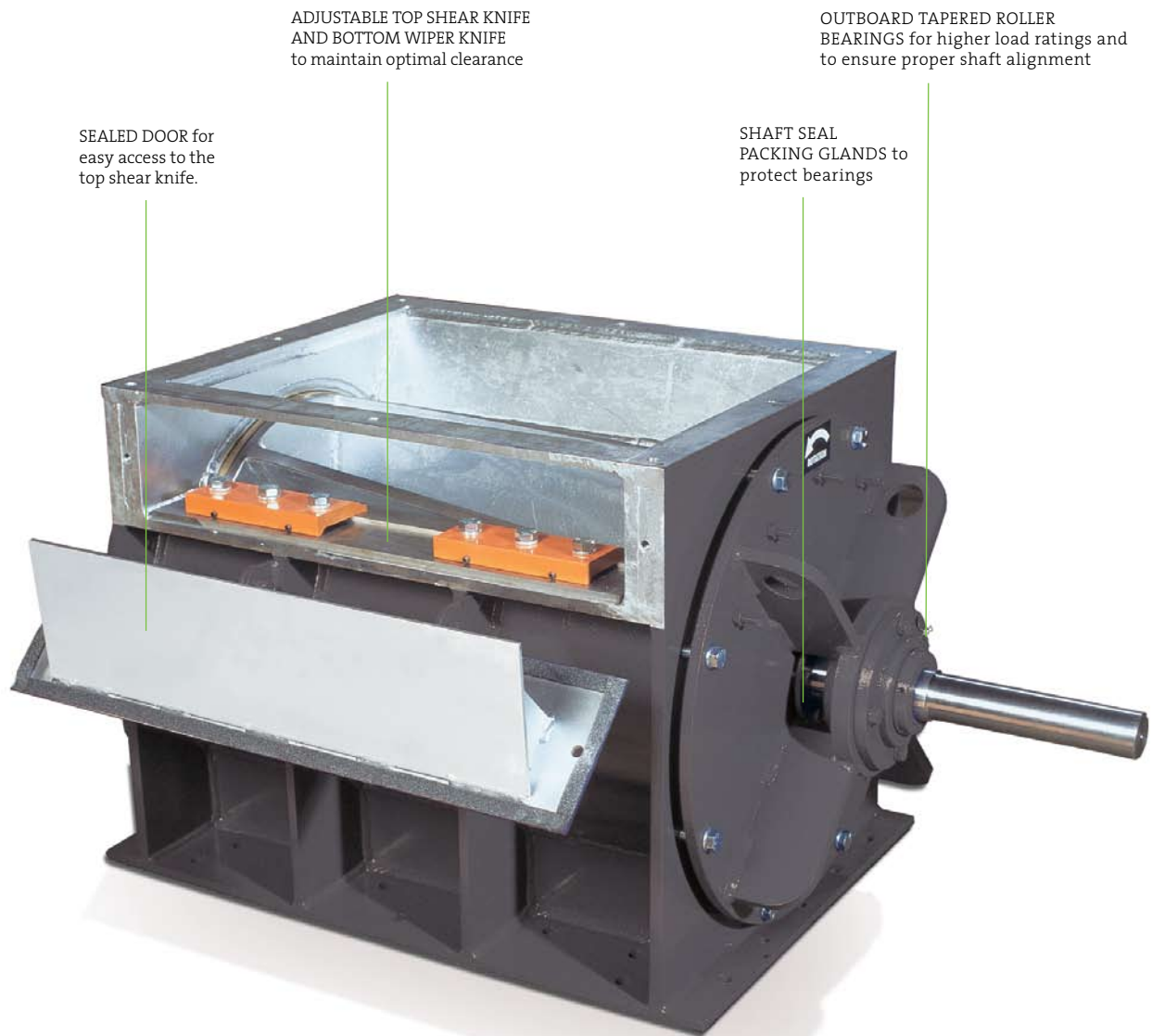
Quality materials



## FIRST IN PRECISION. BEST IN CLASS. BUILT TO LAST.

Precision feeders withstand harsh materials and unforgiving environments longer than other rotary feeders. Why? First up, 30 years of innovative feeder engineering and machining experience. Second, durable materials. For example, hardened stainless steel-tipped rotor blades and precise clearances to maximize efficient handling of your material are standard. Precision feeders are completely fabricated and individually machined to hold the tolerances ideal for the specific materials you move. And, because the barrel is thicker and hardened with chrome, you can squeeze many more lives out of one feeder.

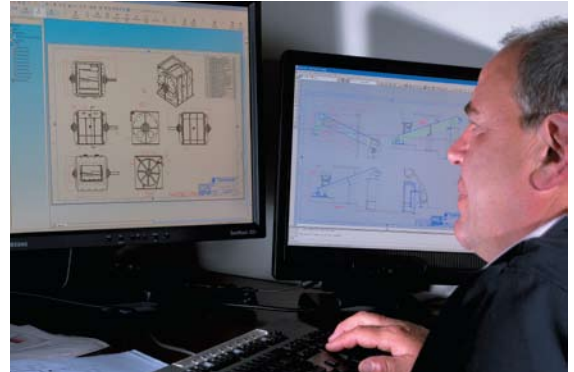
We have dozens of off-the-shelf sizes in stock, but we will gladly custom design a feeder specific to your application, or manufacture to your design and specifications. Your existing feeder is worth a trade-in allowance on a new Precision Rotary Feeder.





## TAKES A BEATING AND KEEPS ON FEEDING.

Precision rotary feeders can take a beating from beads, seeds, pellets, pits, chips, gypsum, marble and all kinds of biomass materials for years on end before they wear out. The barrel is extra thick so it can be rebuilt one or two times before needing replacement. That means more uptime, higher productivity, and less cost over its long, long life. So don't let your bottom line take a beating, especially when all these features can be yours with Precision.



REMOVABLE, REPLACEABLE  
DRIVE SHAFT machined  
from stressproof steel for  
added strength

HARD-CHROMED BARREL  
for less friction and a  
longer life

EXTERNALLY ADJUSTABLE  
BRASS END SEALS  
to maintain proper rotor  
end clearance

ROTOR AND BARREL  
machined to  
application tolerances

HARD SURFACED ROTOR  
BLADES with stainless steel  
to give extended life

The Rotary Feeder is designed to enable a positive shearing action to keep material from wedging between the rotor and the barrel. A hardened steel knife at the infeed opening shears "overs" and cleans the rotor blades to protect the housing from abrasion.

A similar knife at the discharge opening cleans the rotor blades after material has been emptied from each rotor pocket.



EYEBROW REMOVED  
FOR CLARITY

# THE FEEDER PERFECTED BY 30 YEARS OF FEEDBACK

Precision began by repairing rotary feeders. We learned a lot about why feeders wear out before we decided to engineer, machine, and fabricate the most durable and efficient rotary feeders available anywhere. That was over 30 years ago. Today, as always, all of our feeders are made in the USA of quality materials. They are designed with extra thick barrels so they can be rebuilt at least once or twice before needing replacement. You'll see from the special features and benefits listed below that no detail is overlooked, right down to complete instructions and safety stickers. With periodic inspection and your scheduled maintenance program, your Precision Rotary Feeder will give you many years of reliable service to maximize uptime and productivity.

## DURABILITY

- Shaft-seal packing glands protect bearings.
- Outboard tapered roller bearings support higher load ratings and ensure correct shaft alignment.
- Rotor blades are machined and hard-surfaced with stainless steel to extend life.

## FLEXIBILITY

- Adjustable top shear knife and bottom wiper knife maintain proper clearances.
- Sealed door provides easy access to the top shear knife.
- Externally adjustable brass end seals maintain proper rotor end clearance.

## QUALITY CRAFTSMANSHIP

- Rotor and barrel are machined to application tolerances.
- A hard chromed barrel reduces friction and extends life.
- A removable, replaceable drive shaft machined from stressproof steel provides added strength.

*"Precision Machine & Manufacturing, Inc., worked with us to specially design a Rotary Feeder for our mobile equipment. Engineered to our specifications, the Rotary Feeder meters a variety of mulches and compost, and is always precise and dependable."*

—**David Looney**  
Former Production Supervisor,  
Express Blower

## CUSTOMERS SAY IT BEST.



*"We used to change our rotary valves every 3 months. Now, due to Precision Machine's experience with advanced metallurgy and quality control, we do so only once per year, and we're looking at ways to improve the reliability beyond that. The payoff is in lower costs and increased efficiency."*

— **Graeme Donaldson**  
Vice President and Plant Operations  
Manager, Colmac Energy, Inc.

## ROTARY FEEDER APPLICATIONS

Ash	Lime
Asphalt	Pulp
Bagasse	Petroleum Coke
Bark	Plastics
Biomass Fuel	Salt Cake
Cement	Sawdust
Charcoal	Wood Chips
Coal	Wood Pellets





# A NEW PRECISION FEEDER WITH THE IDEAL CAPACITY FOR YOUR APPLICATION CAN INCREASE PRODUCTIVITY AND EFFICIENCY.

The right capacity feeder for your application can increase productivity. Precision gives you a wide range to choose from, plus custom capacities. We also offer a trade-in allowance for your used feeder if you replace it with a new Precision Rotary Feeder. Or, we can rebuild your current feeder.

## STANDARD CAPACITY ROTARY FEEDERS (CUSTOM CAPACITIES ON REQUEST)

## RECOMMENDED CAPACITY IN UNITS\*/HOUR

Model	CFR	Maximum Recom. RPM	Length	Height	Width	Screened Chips Sawdust Bark or Shavings	Unscreened Chips Hammer, Hog Bark, Scr. Hog Fuel	Unscreened Knife Hog Fuel	Estimated Weight (lbs.)
PMR 14X18	.93	45	19.25	18	18	5.0	—	—	500
PMR 16x20	1.46	45	21	21	20	8.0	—	—	800
PMR 20X20	2.19	42	21	26	25	14.25	10.2	—	1300
PMR 20X25	2.93	42	26	26	25	19.25	13.7	—	1450
PMR 20X30	3.66	42	31	26	25	24.50	17.5	15.5	1600
PMR 25X30	5.65	38	31	32	31	37.2	28.7	20.7	1800
PMR 25X35	6.78	38	36	32	31	43.5	33.6	24.0	2000
PMR 30X30	8.45	35	31	38	38	52.5	42.9	34.8	2450
PMR 30X35	10.30	35	36	38	38	63.0	51.3	40.8	2700
PMR 30X40	11.10	35	41	38	38	71.0	58.0	46.0	2950
PMR 30X45	12.70	35	46	38	38	83.5	68.0	54.0	3200
PMR 35X45	17.20	32	49	44	44	120.6	103.0	87.0	4600
PMR 35X50	19.35	32	54	44	44	137.0	116.0	98.0	5200
PMR 35X55	21.50	32	58	44	44	152.0	130.0	109.0	5800
PMR 45X45	30.00	29	55	56	56	195.0	172.0	144.0	11500
PMR 45X50	33.75	29	60	56	56	220.0	193.0	162.0	12200
PMR 45X55	37.50	29	65	56	56	244.0	214.0	180.0	13000

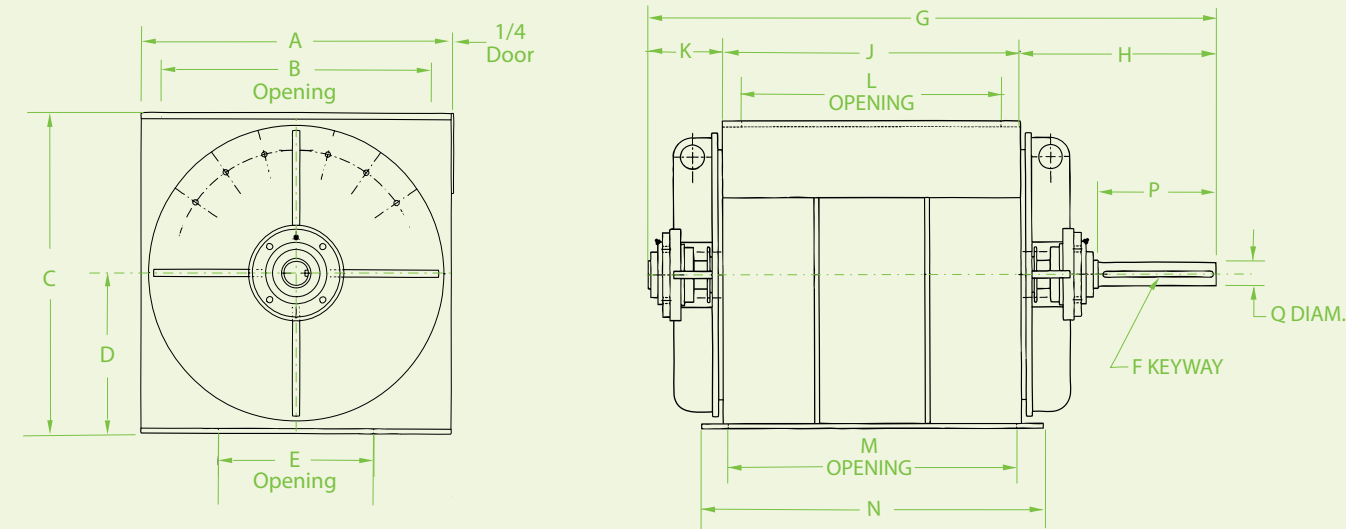
\*1 UNIT = 200 CU. FT.



# FEEDER SIZE SELECTION GUIDE

The Precision Rotary Feeder is a full-featured, completely fabricated rotary valve, built for extreme durability using the finest quality materials throughout.

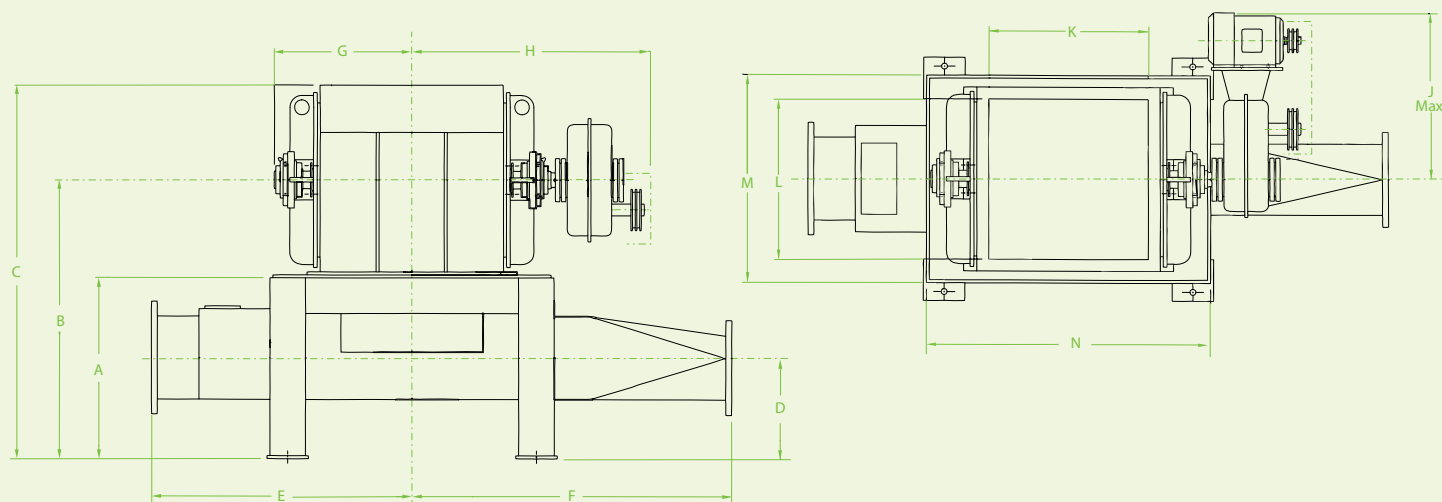
No job too big.  
More than 15 different  
off-the-shelf sizes  
from 45" x 55"  
down to 14" x 18"  
are ready to ship and  
fit your application  
precisely.



## DIMENSIONS

SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
14X18	18.00	15.00	18.00	9.00	9.00	½x¼x7	44.00	15.56	19.25	9.19	15.00	18.00	22.00	8.38	1 15/16
16X20	20.00	16.00	21.00	10.50	10.00	½x¼x9	46.00	17.25	21.00	7.75	16.50	20.00	24.00	9.25	1 15/16
20X20	25.00	21.00	26.00	13.00	10.00	½x¼x9	47.00	16.75	21.00	9.25	16.00	20.00	25.00	9.25	2 3/16
20X25	25.00	21.00	26.00	13.00	13.00	½x¼x9¼	51.25	17.00	26.00	8.25	21.00	25.00	30.00	9.50	2 3/16
20X30	25.00	21.00	26.00	13.00	13.00	½x¼x9½	56.50	17.25	31.00	8.25	26.00	30.00	35.50	9.75	2 3/16
25X30	31.00	27.00	32.00	16.00	15.50	5/8x5/16x11¾	59.00	20.25	31.00	7.75	27.00	30.00	35.50	12.25	2 7/16
25X35	31.00	27.00	32.00	16.00	15.50	5/8x5/16x11¾	64.00	20.25	36.00	7.75	31.00	35.00	40.50	12.25	2 7/16
30X30	38.00	34.00	38.00	19.00	20.00	¾x3/8x11¾	61.00	21.25	31.00	8.75	26.00	30.00	38.00	12.00	2 15/16
30X35	38.00	34.00	38.00	19.00	20.00	¾x3/8x11¾	66.00	21.25	36.00	8.75	31.00	35.00	43.00	12.00	2 15/16
30X40	38.00	34.00	38.00	19.00	18.00	¾x3/8x11½	72.50	21.00	41.00	10.50	35.00	40.00	47.00	13.00	2 15/16
30X45	38.00	34.00	38.00	19.00	18.00	7/8x7/16x11½	77.50	21.00	46.00	10.50	40.00	45.00	52.00	-----	3 7/16
35X45	44.00	36.00	44.00	22.00	22.75	1x½x13	85.00	23.50	49.00	12.50	41.75	47.75	55.25	-----	3 15/16
35X50	44.00	36.00	44.00	22.00	22.75	1x½x13	90.00	23.50	54.00	12.50	47.00	52.75	60.75	-----	3 15/16
35X55	44.00	36.00	44.00	22.00	22.75	1x½x13	95.00	23.50	58.00	12.50	52.00	57.75	65.75	-----	3 15/16
45X45	56.00	46.00	56.00	28.00	30.00	1¼x5/8x15 1/8	98.00	28.00	55.00	15.00	42.00	47.00	55.00	-----	4 15/16
45X50	56.00	46.00	56.00	28.00	30.00	1¼x5/8x15 1/8	103.00	28.00	60.00	15.00	47.00	52.00	60.00	-----	4 15/16
45X55	56.00	46.00	56.00	28.00	30.00	1¼x5/8x15 1/8	108.00	28.00	65.00	15.00	52.00	52.00	65.00	-----	4 15/16

The Precision Rotary Feeder can be furnished with an optional injector tee and mounting stand for pneumatically conveyed applications using a check valve, which prevents material from back-flowing into the blower. The injector tee has a bolt-on side door for easy access to the feeder's bottom knife. There is also a top bolt-on door for access to the check valve and to adjust air flow through the injector tee. All components can be custom designed to fit your line size and center lines.



## DIMENSIONS WITH INJECTOR TEE

SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N
<b>14X18</b>	23	32	41	12	31	40	19	32	29	15	15	20	34
<b>16X20</b>	23	34	44	12	33	45	19	34	29	16	16	22	36
<b>20X20</b>	37	50	63	18	36	57	20	34	27	16	21	28	37
<b>20X25</b>	37	50	63	18	38	60	22	36	27	21	20	28	42
<b>20X30</b>	37	50	63	18	41	62	24	39	27	26	20	28	47
<b>25X30</b>	37	53	69	18	44	66	24	42	30	27	27	34	47
<b>25X35</b>	37	53	69	18	46	69	26	45	30	31	27	34	52
<b>30X30</b>	47	66	85	24	48	77	25	43	32	26	34	40	47
<b>30X35</b>	47	66	85	24	50	80	27	46	32	31	34	40	52
<b>30X40</b>	47	66	85	24	53	82	31	48	36	35	34	40	57
<b>30X45</b>	47	66	85	24	55	85	34	50	36	40	34	40	62
<b>35X45</b>	54	76	98	24	63	98	37	54	40	42	36	45	69
<b>35X50</b>	54	76	98	24	66	100	40	57	40	47	36	45	74
<b>35X55</b>	54	76	98	24	68	103	42	59	40	52	36	45	79

Note: Dimensions shown are for the maximum line size. Mounting dimensions available upon request from our engineering department.

# PRECISION MACHINE & MANUFACTURING, INC.

Founded in 1977, Precision Machine & Manufacturing, Inc. has grown steadily into a modern, complete OEM facility. Today, Precision Machine is recognized as one of the nation's leading designers and manufacturers of rotary valves, rotary feeders and screw conveyor material handling systems and components that deliver maximum uptime to its customers.

Precision Machine's products are designed and fabricated in the USA using the latest CNC and robotic equipment to handle virtually any dry, granular or powdery material. Precision's tight tolerances and high quality construction materials and finishes ensure maximum uptime, especially for customers handling abrasive substances such as fly ash, coal, coke, volcanic cinders, diatomaceous earth and pebble lime.

## PRECISION PRODUCTS OF UNMATCHED VALUE

**ROTARY VALVES** The company's flagship product, the PMV® modular rotary valve, is unique, heavy-duty and precision-built, using modular construction instead of a cast housing. Machined to the tightest tolerances, the PMV modular rotary valve operates more efficiently for longer periods. Worn parts are simply unbolted and inverted or replaced, enabling the PMV to be rebuilt in place, cutting downtime. PMV valves have been known to extend the useful life to over four times the life of cast valves.

**FEEDERS** Precision Machine's rotary feeders are precisely engineered with heavier barrels and can be rebuilt many times before needing replacement. The rotor blades are hard surfaced to give extended life, and the barrel material can be manufactured from mild steel, stainless steel or alloy steel up to 500 Brinell to meet harsh application requirements.

**SCREW CONVEYORS** Precision manufactures its screws to any specified size using virtually any commercially available material. Standard screw configurations include variable pitch, tapered flights, cut flights, screws with integrated mixing paddles, and ribbon screws. The company is the leader in custom screws for challenging applications.

**CUSTOM PRODUCTS** The company's innovative engineering department transforms customer ideas into new long-lasting, hard-working material handling products for special needs – all designed to increase throughput, improve efficiency, and maximize uptime.

## BUILT PRECISELY FOR MAXIMUM UPTIME™

**There are rotary valves, feeders, or screw conveyors that are priced less than Precision, but none that make you more efficient, more productive, or more profitable.** For moving virtually any dry, granular or powdery material smoothly in measured amounts, nothing performs better. All designs are available in left- or right-hand flow directions. All machining, welding, and manufacturing services are performed in the USA.

We've been designing and manufacturing smarter products of unmatched value for over 30 years. Our innovative engineering department and skilled craftspeople work with customers to create unique solutions that give them a competitive edge by increasing throughput, improving efficiency, and maximizing uptime. Are you pushing productivity? We can help. Call us.

For more information or a quote,  
call toll free 1-800-722-9841  
or email [sales@premach.com](mailto:sales@premach.com).

## SERVING MATERIALS HANDLING MARKETS

The company works closely with biomass power cogeneration, mining, cement, chemical, wood products and pharmaceutical customers throughout North America to create unique solutions that maximize uptime and handling efficiency in order to give customers a competitive edge in their markets.



## PRECISION

PRECISION MACHINE & MANUFACTURING, INC.

1290 S. Bertelsen Road  
Eugene, Oregon 97402-5700  
541-484-9841 main  
541-484-4094 fax

[www.premach.com](http://www.premach.com)



PMV® MODULAR ROTARY VALVES



ROTARY FEEDERS



SCREW CONVEYORS



CUSTOM MACHINING  
& FABRICATION